

AMENDMENTS TO THE CLAIMS

1. (Allowed). A blood separation assembly comprising
a blood processing chamber comprising a base including formed walls that define a separation channel, and

a centrifuge rotor rotatable about a rotational axis, the centrifuge rotor including a latch assembly including a latch arm pivotally mounted on the centrifuge rotor for movement between a chamber-retaining position engaging the blood processing chamber, to secure the blood processing chamber to the centrifuge rotor, and a chamber-releasing position free of engagement with the blood processing chamber, to enable removal of the blood processing chamber from the centrifuge rotor, and a pawl movable on the centrifuge rotor between a first position adjacent the latch arm and a second position spaced from the latch arm, the pawl including a locking element that engages the latch arm when the latch arm is in the chamber-retaining position to resist movement of the latch arm toward the chamber-releasing position, and a spring coupled to the pawl to bias the pawl toward the first position.

2. (Allowed). An assembly according to claim 1
wherein the formed walls of blood processing chamber include an annular lip, and
wherein the latch assembly includes an annular groove on the centrifuge rotor sized to mate with the annular lip, the latch arm including a groove that coincides with the annular groove when the latch arm is in the chamber-retaining position and that interrupts the annular groove when the latch arm is in the chamber-releasing position.

3. (Allowed). An assembly according to claim 1
wherein the pawl includes a key element that moves in concert with the pawl, and
further including a collar mounted for rotation relative to the centrifuge rotor about the rotational axis, the collar including a sidewall that interferes with the key element to prevent movement of the pawl from the first position toward the second position, the collar including a cut away region that moves into and out of mutual alignment with the key element during rotation of the centrifuge rotor relative to the collar, the cut away region being sized to permit passage of the key element in response to movement of the pawl from the first position toward the second position when the key element and cut away region are in mutual alignment.

4. (Allowed). An assembly according to claim 1

wherein the blood processing chamber comprises a molded base assembly defining a hub about which the separation channel circumferentially extends, and at least one radial passage that directs fluid between the hub and the separation channel.

5. (Allowed). A blood separation assembly comprising

a frame rotatable about a rotational axis,

a rotor carried by the frame for relative rotation about the rotational axis,

a blood processing chamber comprising a base including formed walls that define a separation channel, and

a latch assembly on the rotor including a latch arm mounted for movement between a chamber-retaining position engaging the blood processing chamber to secure the blood processing chamber to the rotor for common rotation therewith relative to the frame and a chamber-releasing position free of engagement with the blood processing chamber to enable removal of the blood processing chamber from the rotor, the latch assembly including a pawl movable on the rotor between a first position adjacent the latch arm and a second position spaced from the latch arm, the pawl including a locking element that engages the latch arm when the latch arm is in the chamber-retaining position to resist movement of the latch arm toward the chamber-releasing position, and a spring coupled to the pawl to bias the pawl toward the first position.

6. (Cancelled).

7. (Allowed). An assembly according to claim 5

wherein the pawl includes a key element that moves in concert with the pawl, and

further including a collar mounted on the frame for rotation with the frame relative to the rotor, the collar including a sidewall that interferes with the key element to prevent movement of the pawl from the first position toward the second position, the collar including a cut away region that moves into and out of mutual alignment with the key element during relative rotation of the frame and rotor, the cut away region being sized to permit passage of the key element in response to movement of the pawl from the first position toward the second position when the key element and cut away region are in mutual alignment.

8. (Currently Amended). A blood separation assembly comprising

a frame rotatable about a rotational axis,

a rotor carried by the frame for relative rotation about the rotational axis,

a blood processing chamber comprising a molded base assembly including formed walls that define a separation channel, the molded base assembly defining a hub about which the separation channel circumferentially extends, and at least one radial passage that directs fluid between the hub and the separation channel,

a latch assembly on the rotor for movement between a chamber-retaining position engaging the blood processing chamber to secure the blood processing chamber to the rotor for common rotation therewith relative to the frame and a chamber-releasing position free of engagement with the blood processing chamber to enable removal of the blood processing chamber from the rotor,

~~an umbilicus coupled to the separation chamber,~~ the hub of the blood processing chamber being formed to enable attachment of the umbilicus to the separation chamber to convey blood to and from the separation channel through the hub, and

the frame including at least one umbilicus support element that engages the umbilicus when the blood processing chamber is secured to the rotor to rotate the umbilicus about the rotational axis during rotation of the frame, the rotation of the umbilicus imparting rotation to the rotor.

9. (Cancelled)

10. (Allowed). An assembly according to claim 5

wherein the blood processing chamber comprises a molded base assembly defining a hub about which the separation channel circumferentially extends, and at least one radial passage that directs fluid between the hub and the separation channel.